



LIFE BEEF CARBON Project

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Farm Overview



- Farming 25.31 adjusted ha, 4 blocks
- Suckling to beef, grass-based system
 - 35 spring-calving suckler cows
 - Heifers are slaughtered at 23-24 months
 - Bulls are finished under 16 months
 - Breeding own replacements, 100% artificial insemination



Farm Overview



Environmental Conditions

- Highest point is **918 feet** above sea level (Irish average is 387 feet)
- Average rainfall is **1685 mm**, 12 to 47% of this falling in the first 3 months of the year
- The average air temperature has **risen by 0.9 °C** in the last 5 years alone





Key Focus Areas



- **Joined the programme in 2017**

- **Breeding**

- Improved fertility in cows
- Increasing the weaning weight
- Reduced age at slaughter of cattle
- Increased carcass weight
- Reduced cow size

- **Grassland**

- Paddocks
- Measuring
- Improved soil fertility
- Increased weight gain from grass



- **Health, Nutrition, Profitability, Reducing my Carbon Footprint per Kg of beef**



Weanling Performance



KPI	2017	2018	2019	Difference
Average daily weight gain (Kg/day)				
Heifers	1	1.09	1.19	+19%, 0.19 kg/day
Bulls	1.29	1.36	1.39	+8%, 0.1 kg/day



Finishing Performance



Breeding

Grassland Management

		2018		
			(months)	
		15.9		
		24.6		
Car		(g)		
Bulls	332	394	417	+25 kg
Heifers	322	336	340	+18 kg

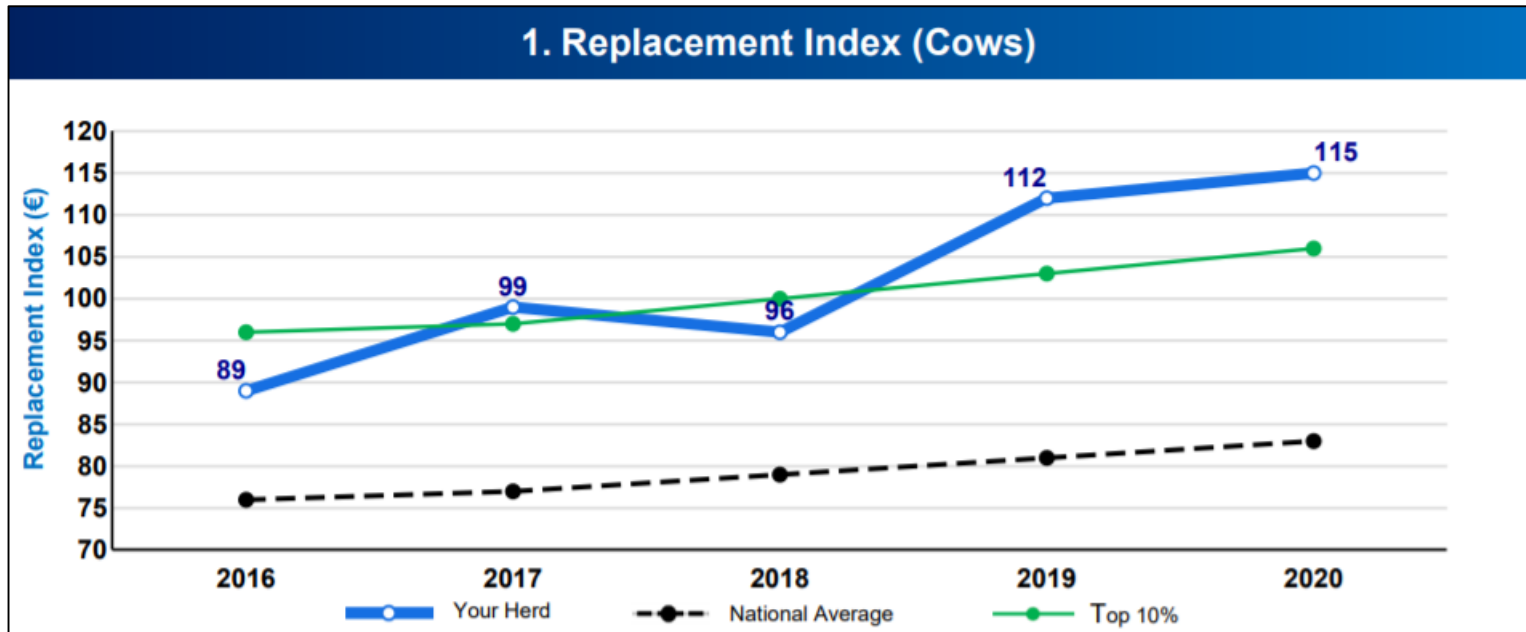


1) Breeding Performance



100% Artificial Insemination

- Using top AI bulls for both **Replacement** and **Terminal** traits
- Using High Maternal bulls for replacements
- Breeding from best cows
- Culling unproductive cows



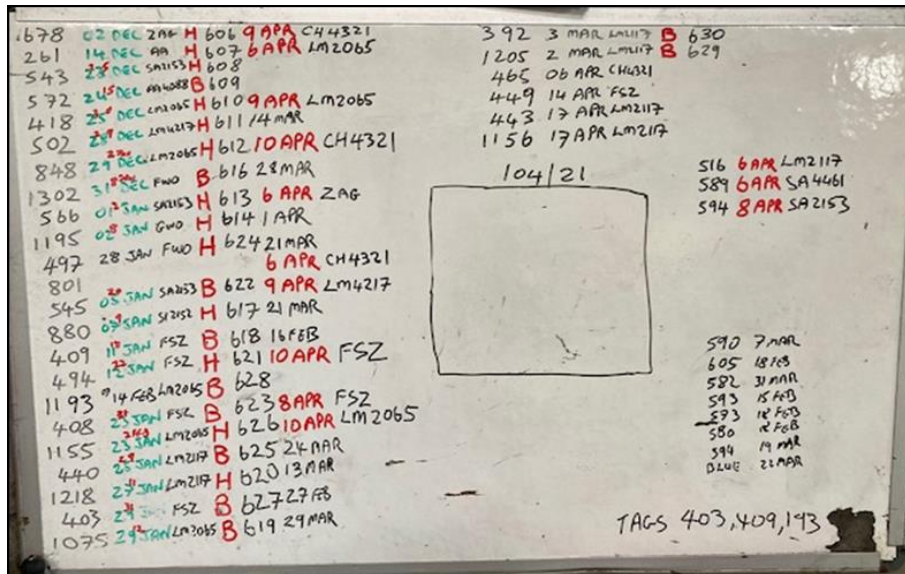


Breeding Performance



- Heat Detection is KEY –
 - Using Allflex SenseHub for heat detection
 - Was using vasectomised bull and tail paint

- Recording information: calving, bulling, breeding dates etc



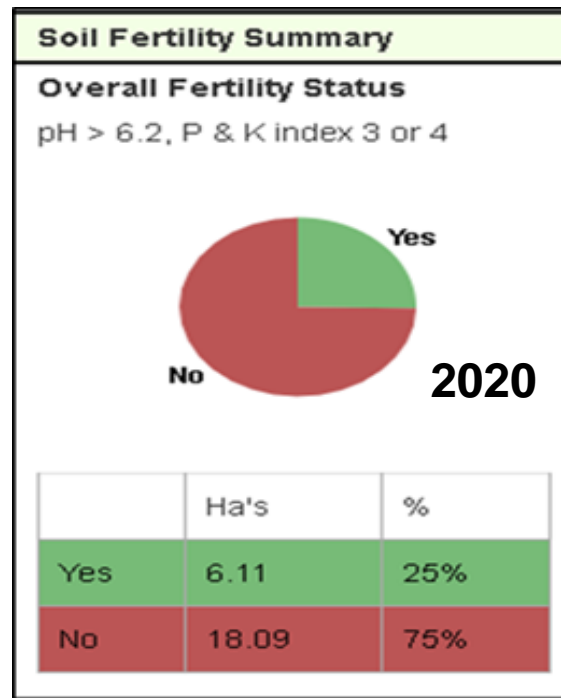
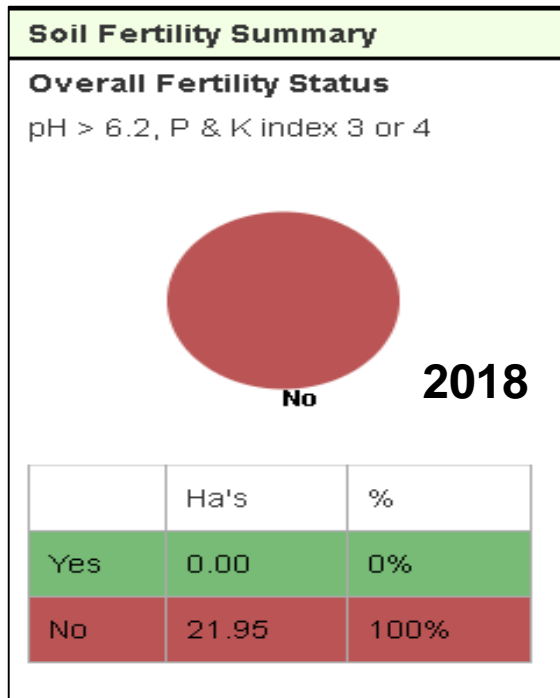


2) Grassland Management



■ Soil Fertility

- Soil samples taken in late 2018
- Implemented fertiliser plan recommendations for pH, Phosphorus & Potassium
- Improved overall soil fertility by **25%** - Work in progress





Grassland Management



- Improved infrastructure
 - Increased the number of paddocks from 12 to 37
 - Added more water troughs
 - Improved access – roadways and gates

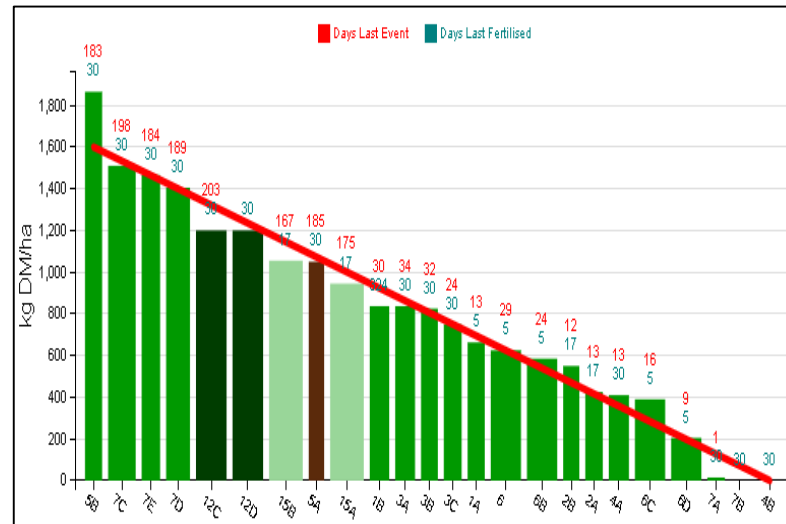




Grassland Management



- Measuring
 - Measuring grass weekly, using PastureBase Ireland
 - Can measure my progress
 - Using the grass wedge to manage grass better
- Increased grass production on farm by **>2 t DM/ha** since 2017





Grassland Management



- Reseeding poorest performing paddocks
- Using top quality grass seeds
- Incorporating clover in reseeds
- Using Protected Urea





Overall Performance



- Increased live weight gain of beef stock
- Reduction of finishing age, increase in carcass weight
- Reducing methane & carbon footprint per kg beef
- More efficient use of inputs: feed, organic & chemical manure, farming time

Measure	2017	2019	Difference
Calving rate – calves/cow/year	0.97	0.95	-0.02
Heifers calving <24 mths	86%	90%	+4%
Stocking rate (LU/ha)	1.68	2.13	+27%
Concentrate feeding (kg/LU)	458	795	+76% (Bulls)
Grass grown (t DM/ha)	9.85	11.84	+20%
Live weight gain (kg/ha)	648	818	+26%